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| APPLICATION NO. 09/434,353 | FILING DATE 11-03-99 | FIRST NAMED INVENTOR BERGEVIN | ATTORNEY DOCKET NO. P-1274-981 |
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| EXAMINER SAYALA, C |
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| ART UNIT 1761 | PAPER NUMBER 3 |
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DATE MAILED: 06/20/01

Please find below and/or attached an Office communication concerning this application or proceeding.

Commissioner of Patents and Trademarks

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| Office Action Summary | Application No. <u>09/434353</u> | Applicant(s) <u>Bergvin</u> | |
| | Examiner <u>Sayala</u> | Art Unit <u>1761</u> | |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136 (a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-41 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-41 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claims ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are objected to by the Examiner.
- 11) ☐ The proposed drawing correction filed on ____ is: a) ☐ approved b) ☐ disapproved.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. § 119

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. § 119(e).

Attachment(s)

- | | |
|---|--|
| 15) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 18) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s). ____ |
| 16) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 19) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 17) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449) Paper No(s) <u>2</u> | 20) <input type="checkbox"/> Other: _____ |

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1. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

2. Claims 27-28 and 38 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 28 recites a fertilizer composition that contains metal ions and in line 2, recites that the metal ions are in the soil. This is in contradiction and renders the claim confusing, since claim 16 already states that the metal ions are in the soil and that the fertilizer contains an acid. Are the metal ions in the fertilizer in addition to those in the soil? If so, applicant should use "further comprising" in claim 27 and point out support for such a claim in the specification, since none could be found at the time of examining these claims.

Claim 38 is indefinite; it depends from claim 36, which depends from 30. Yet claim 30 recites organic acid, while claim 38 recites an inorganic acid.

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless --

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more

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than one year prior to the date of application for patent in the United States.

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 1-41 are rejected under 35 U.S.C. 102(b) as being anticipated by Lovatt (US Patent 5514200).

Lovatt teaches a fertilizer composition that contains organic acids such as citric acid and phosphoric acid or salts. The fertilizer can be applied to the soil or to the foliage. See claims 1, 13 and 21. Note that the molar ratio of the acid to the phosphate ions in the examples coincide with those claimed. See col. 5, lines 5-15 which teaches the addition of micronutrients in the formulation without any precipitation of the phosphate. Such disclosure render inherent the fact that metal ions would be shielded.

6. Claims 1-41 are rejected under 35 U.S.C. 103(a) as being unpatentable over Lovatt.

Lovatt teaches a fertilizer with phosphate ions that is buffered with a multiple buffer containing phosphoric acid and

phosphorous acid and citrate ion. See col. 3, lines 45-67 and col. 4, lines 1-51 and col. 5, lines 5-16. At col. 6, lines 25-30, patentee teaches that amounts of phosphorous and citrate are not critical and can be achieved so long as proper buffering occurs to maintain the fertilizer as a soluble composition without any precipitation. See in particular col. 5, lines 5-15 that discusses such precipitation with respect to metal ions, which is the same intent as in the instant claims. It would have been obvious for one of ordinary skill in the art, that even though amounts are not given and that even though the patent does not state expressly that the fertilizer is "shielded" from metal ions by the acid, the purpose is the same and the metal ions, when in the acid, prevent the precipitation of the fertilizer and keep the formulations stable for use in the roots and on the foliage. See col. 2. In the embodiment claimed instantly, wherein the fertilizer is applied to the foliage (and not to the soil), it is the stability of the fertilizer that is of consideration and is provided by the combination of acids and phosphates.

7. Claims 16-24, 26-27, 29-37, 39-40 are rejected under 35 U.S.C. 102(b) as being anticipated by Parham, Jr. et al. (US Patent 3798020).

Parham et al teach that when micronutrients are added to phosphate solutions, they precipitate and do not supply the necessary fertilizer required by the plant. See col. 1. The patent provides a mixture of citric acid and phosphoric acid ions

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in combination to overcome this problem. Amounts are shown at col. 2, line 35-40.

8. Claims 1-11, 14, 16-24, 26-27, 29-37, 39-40 are rejected under 35 U.S.C. 103(a) as being unpatentable over Parham, Jr. et al.

Parham et al is as discussed above. The patent does not state expressly that the fertilizer is "shielded" from metal ions by the acid. However, it would have been obvious to one of ordinary skill in the art at the time the invention was made that whether the micronutrients are in the soil or in the formulation of the fertilizer or whether the combination of Parham et al is applied to the soil or to the foliage, the purpose is the same, and the metal ions when in the acid, prevent the precipitation of the fertilizer and keep the formulations stable for use in the roots and on the foliage.

9. Claims 16-18, 23-25, 27-28 are rejected under 35 U.S.C. 102(b) as being anticipated by Beaty (US Patent 5634959) or Neumiller (US Patent 3918952).

The patents show EDTA and polyphosphate in fertilizer formulations in amounts that coincide herein. See col. 4 in '959 and examples 1 and 8 for instance, in '952.


10. Claims 16, 23, 25-29, 40-41 are rejected under 35 U.S.C. 102(b) as being anticipated Chen et al. (US Patent 4336052).

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Chen et al. teaches a formulation of fertilizers containing polyphosphates, phosphoric acid and sulfurous acid. See col. 4. See claims 1-3, 7-8.

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. See col. 1, lines 19-65 in US Patent 3649175. See col. 2, lines 15-35 in US Patent 3909228. Both these disclosures are representative of the state of the art and the recognition of the problems associated with phosphate fertilizers.

Any inquiry concerning this communication should be directed to Examiner C. Sayala at Group 1761, telephone number (703) 308-3035. Any inquiry of a general nature or relating to the status of this application should be directed to the Group receptionist whose telephone number is (703) 308-0661. The fax phone number for this Group is (703)305-3599.


C. Sayala
Primary Examiner
Group 1761.